

**Notice of Allowability**

Application No.

10/667,440

Examiner

Gertrude Arthur-Jeanglaude

Applicant(s)

TAKAFUJI ET AL.

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address–

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 9/23/03.
2. ☒ The allowed claim(s) is/are 1-15.
3. ☒ The drawings filed on 23 September 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 92303
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

*Gertrude A. Jeanglaude*  
GERTRUDE A. JEANGLAUDE  
PRIMARY EXAMINER

## **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance: The prior art fails to disclose a pedestrian collision protection system for a vehicle comprising a pedestrian protecting element provided in the vehicle for protecting the pedestrian from the collision according to a pedestrian collision site in the lateral directions at a collision against the pedestrian on the basis of outputs of the pedestrian collision detecting element and the pedestrian collision site detecting element, wherein the collision detecting element also functions as the collision site detecting element, and includes: a line sensor composed of a plurality of conductive lines which are separated from each other by a predetermined spacing to confront each other and come into contact with each other when a collision against the pedestrian occurs; and a detection circuit unit made to carry out the collision detection and the collision site detection on the basis of a variation of quantity of electricity related to an impedance between the plurality of conductive lines. Nor does the prior art disclose a collision site detecting apparatus for a vehicle comprising a detection circuit unit for detecting a quantity of electricity related to an impedance between predetermined positions of both the conductive lines, wherein at least one of both the conductive lines is made of a resistive material having a predetermined resistivity, and when a collision against a body occurs, the spacing between both the conductive lines is locally elastically reduced at a position of the

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collision and its vicinities so as to be restorable, and the impedance varies according to the collision position. Nor does the prior art disclose a collision position detecting apparatus for a vehicle comprising a pair of voltage drop detection resistive elements individually connected between both end portions of the second conductive line and a predetermined constant-potential source; and a collision position detection circuit unit for discriminating a collision position obtained on the basis of voltage drops across both the resistive elements through the use of an n-bit digital signal, wherein, when an electrical resistance value per unit distance of the first conductive line in the lateral directions is taken as  $R1$ , an electrical resistance value per unit distance of the second conductive line in the lateral directions is taken as  $R2$ , an electrical resistance value of both the resistive elements is taken as  $R3$ ,  $R3/R1$  is expressed as  $S$ , a constant (required resolution/sensor installation width) is taken as  $dx$ , and a maximum allowable resistance ratio is taken as  $T$ , a resistance ratio ( $R7/R1$ ) is set to be below  $T$  given by the following equation. (as set in the claim). These limitations in combination are neither taught nor obvious by the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Stephan (20040066286) disclose a system for sensing whether an object struck in a collision is a pedestrian.

Hattori et al. (US 6,561,301) disclose a collision discriminating apparatus for vehicles.

Lucchini et al. (US 4,249,632) disclose a safety device for the protection of pedestrians.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gertrude Arthur-Jeanglaude whose telephone number is (703) 308-7564. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GAJ

*GAJ*

July 29, 2004

*Gertrude A. Jeanglaude*  
GERTRUDE A. JEANGLAUE  
PRIMARY EXAMINER